

Applicant: Takemi Aonumar
Serial No.: 09/889,263
Filed: October 16, 2001
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Amendments to the Specification

Please enter the following as a replacement for paragraph [0017] on page 8 of the Specification:

[0017] Based on the results of the morphological observation, physiological character tests and the determination of the GC content in the intracellular DNA so far described, the microorganism was identified referring to Gordon, R.E., Haynes, W.C. and Pang, C.H., "The Genus *Bacillus*" (1973), U.S. Department of Agriculture and Sneath, P.H.A., Mair, N.S., Sharpe, M.E. and Holt, J.G., "Bergery's Manual of Systematic Bacteriology" Vol. 2, (1986) Williams & Wilkins. As a result, the soil bacterium was identified as a bacterial species belonging to *Bacillus subtilis*. This bacterium was designated *Bacillus subtilis takemi* and deposited at the National Institute of Bioscience and Human-Technology, Agency of Industrial Science and Technology, Ministry of International Trade and Industry (1-3 Higashi 1-Chome, Tsukuba City, Ibaraki Pref., Japan) on December 1, 1998 under the accession number FERM BP-6589.

According to the terms of the deposit at the National Institute of Bioscience and Human Technology, all restrictions on the availability to the public of the material so deposited will be irrevocably removed upon the granting of a patent. *Bacillus* is a group of gram-positive, rod-shaped bacteria that form thermo-stable spores and are distributed widely in common environment such as soil. *Bacillus subtilis* is also known as hay bacillus. In addition to the above-described characters, *Bacillus subtilis takemi* was confirmed to have a remarkable smell of coffee when culture plates of *B. subtilis takemi* cultured as described above were kept in a refrigerator adjusted at about 5°C. Further, it was confirmed that *Bacillus subtilis takemi* contains chitin and/or chitosan in its cell walls.

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Please enter the following as a replacement for paragraph [0043] beginning on page 17 of the Specification:

[0043] The amount of glucosamine in the test solution was quantitatively determined by high performance liquid chromatography (absolute calibration curve method, measurement of peak height).

4) Calculation

i) When the determined glucosamine was converted into chitin (N-acetylglucosamine polymer):

$$\text{Chitin (\%)} = G \times V / W \times 10^{-4} \times 1.1341$$

G: glucosamine concentration ($\mu\text{l/ml}$) in the test solution

determined from the calibration curve

V: constant volume of the test solution (ml)

W: amount of the sample used (g)

1.1341: weight conversion factor from glucosamine to chitin

ii) When the determined glucosamine was converted into chitosan (glucosamine polymer):

$$\text{Chitosan (\%)} = G \times V / W \times 10^{-4} \times 0.8995$$

G: glucosamine concentration ($\mu\text{l/ml}$) in the test solution

determined from the calibration curve

V: constant volume of the test solution (ml)

W: amount of the sample used (g)

0.8995: weight conversion factor from glucosamine to ~~chitin~~

chitosan